

Appl. No. 10/022,663
Response dated Apr. 6, 2004
Reply to Office Action of Feb. 6, 2004

Regarding Examiner's Rejections

1. Rejection for obviousness by Pereira – Claims 18 and 20

By way of the Office Action mailed February 6, 2004, Examiner Stephens rejected claims 18 and 20 under 35 U.S.C. § 103(a) as allegedly being obvious to one of ordinary skill in the art at the time the invention was made and thus unpatentable over Pereira (U.S. Patent No. 6,087,551). This rejection is respectfully **traversed** as it relates to the Applicants' claims.

Pereira teaches a homogeneous blend of single-component, high- and low-denier staple fibers where the low denier fibers have a denier of from about 2 to 4, and most preferably about 3 denier, and where the high denier fibers have a denier of from about 4 to 15, and most preferably about 5 denier (column 2, lines 41-45). As the Examiner has pointed out, Pereira does not disclose or otherwise teach a low denier fiber having an average denier of one or less. The range disclosed by Pereira does not even abut the range of the present invention.

A fiber having a denier of one or less is significantly smaller than a fiber having a denier of 2 or greater. It is also known to those skilled in the art that the production of fibers having a denier less than one is more difficult than those having a denier of 2 or greater.

The present invention shows that the use of low denier fibers having a denier of one or less, provides the resultant nonwoven with significant improvement in the balance of fluid handling characteristics over nonwovens that use larger low denier fibers. This is demonstrated in comparing the testing results of Example 1 and Control 2 on pages 17 – 19. Example 1 (page 17, first paragraph) provides the best comparison to Control 2 as the only difference between the two materials is that the first denier fiber of Example 1 is a 0.9 denier polyethylene/polypropylene (PE/PP) sheath/core fiber and the corresponding smaller denier fiber of Control 2 is a 3 denier PE/PP sheath/core fiber. As discussed on page 18 (lines 5 – 19), Example 1 had a much better balance of fluid intake and fluid handling than Control 2. Also, TEWL testing showed that Example 1 provided significantly better minimization of skin hydration than Control 2 (shown by a TEWL value for Example 1 that was 30% less than that of Control 2).

The present invention also shows that the difference in deniers between that of the first denier fiber and that of the second denier fiber provides the resultant nonwoven with a significant improvement. This is demonstrated in comparing the results of the TEWL testing results of Example 1 with that of Control 1 and Control 2. As discussed on page 18, Example 1 differed from Control 2 in that Example 1 had a smaller denier first denier fiber (0.9 denier) than that of Control 2 (3 denier). This provided Example 1 with a TEWL value 30% below that of Control 2. Comparatively, Control 1 differed from Example 1 by also having a larger first fiber (2 denier) as well as a smaller difference between the deniers of the first and second denier fibers. The difference in the first and second denier fibers of Control 1 was only one denier, while the same difference for Example 1 was 5.1 denier. (The difference in first and second denier fibers for Control 2 was

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3 denier). These differences provided Example 1 with a TEWL value 8% below that of Control 1. While this 8% difference is a significant improvement, it is less of an improvement than the improvement shown over Control 2, where both the first denier fiber was smaller and the difference between the first and second denier fibers was greater.

Additionally, there is nothing in the disclosure or teachings of Pereira that would suggest or motivate one skilled in the art to use fibers having a denier less than two. There is no teaching or suggestion in Pereira that decreasing the denier of the low denier fibers provides any benefit to the particular application of Pereira. There is no teaching or suggestion in Pereira that the fiber size or mixture of fiber sizes affects fluid handling characteristics. In fact, Pereira suggests that optimum level within the stated range of 2 to 4 denier would be greater than 2 denier.

In one preferred embodiment, Pereira states that the "low denier staple fibers have a denier of from about 2 to 4 and most preferably of about 3" (column 2, lines 41 -43). In another embodiment of Pereira, where the nonwoven is used as a body side liner, the low denier staple fibers are preferably in the range of 2.5 to 3.5 denier. If Pereira makes any suggestion of the optimum fiber denier for its particular application, it is the suggestion that the optimum denier would be greater than 2 denier. There is no suggestion in Pereira that a denier of less than two would provide any benefit and thus there is no suggestion in Pereira for the use of low denier fibers of one denier or less.

A *prima facie* case of obviousness can not be sustained with regard to claim 18 or claim 20, which depends on and contains all the limitations of claim 18, in view of Pereira. Therefore, Applicants respectfully ask that the obviousness rejection of claims 18 and 20 under 35 U.S.C. § 103(a) be withdrawn.

2. Rejection for obviousness by Pereira in view of Zehner et al. – Claim 19

By way of the Office Action mailed February 6, 2004, Examiner Stephens rejected claim 19 under 35 U.S.C. § 103(a) as allegedly being obvious to one of ordinary skill in the art at the time the invention was made and thus unpatentable over Pereira (U.S. Patent No. 6,087,551) in view of Zehner et al. (U.S. Patent No. 5,366,453). This rejection is respectfully traversed as it relates to the Applicants' claims.

Claim 19 is dependent on claim 18 and contains all of the limitations of claim 18. For all of the reasons stated above, in the discussion of claims 18 and 20, Claim 19 is similarly distinguishable from Pereira in view of Zehner as Pereira is no longer an appropriate base reference for an obviousness rejection.

Additionally, as the Examiner has stated, Pereira does not disclose a nonwoven material comprising bicomponent fibers. The Examiner contends that one skilled in the art would be motivated to modify the nonwoven of Pereira to include a first (low) denier bicomponent fiber for the benefits disclosed in Zehner. The bicomponent fibers of Zehner are 2.25 denier polyethylene/polyester (PE/PET) fibers (see

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column 8, lines 20-51). There is no suggestion or teaching in Zehner with regard to fluid handling properties or to the use a bicomponent fiber low denier fiber of having a denier of one or less.

A *prima facie* case of obviousness over Pereira, in view of Zehner, can not be sustained with regard to claim 19. Thus, Applicants respectfully ask that the obviousness rejection of claim 19 under 35 U.S.C. § 103(a) be withdrawn.

3. Rejection for obviousness by Pereira in view of Zehner et al. - Claims 1-5 and 7-17

By way of the Office Action mailed February 6, 2004, Examiner Stephens rejected claims 1 - 5 and 7 - 17 under 35 U.S.C. § 103(a) as allegedly being obvious to one of ordinary skill in the art at the time the invention was made and thus unpatentable over Pereira (U.S. Patent No. 6,087,551) in view of Zehner et al. (U.S. Patent No. 5,366,453). This rejection is respectfully **traversed** as it relates to the Applicants' claims.

The Examiner has stated that Pereira/Zehner does not disclose a first denier fiber having an average denier of 1 or less. As discussed above for claims 18 - 20, neither Pereira, Zehner, nor the combination of Pereira and Zehner, provide any suggestion or motivation to use a first denier fiber with a denier less than 2. Therefore, a *prima facie* case of obviousness cannot be sustained for claim 1. As such, the structure cited in the reference cannot be taken as substantially similar to the present invention and thus the properties and functions claimed in claims 10 - 12 cannot be presumed to be inherent.

A *prima facie* case of obviousness over Pereira, in view of Zehner, cannot be sustained with regard to claim 1 or claims 2-5 and 7-17, which depend on and contain all the limitations of claim 1. Therefore, Applicants respectfully ask that the obviousness rejection of claims 1 - 5 and 7 - 17 under 35 U.S.C. § 103(a) be withdrawn.

4. Rejection for obviousness by Pereira in view of Zehner et al. - Claim 21

By way of the Office Action mailed February 6, 2004, Examiner Stephens rejected claim 21 under 35 U.S.C. § 103(a) as allegedly being obvious to one of ordinary skill in the art at the time the invention was made and thus unpatentable over Pereira (U.S. Patent No. 6,087,551) in view of Zehner et al. (U.S. Patent No. 5,366,453). This rejection is respectfully **traversed** as it relates to the Applicants' claims.

For the same reasons as discussed above for claims 1-5 and 7-20, a *prima facie* case of obviousness over Pereira, in view of Zehner, cannot be sustained with regard to claim 21. Therefore, Applicants respectfully ask that the obviousness rejection of claim 21 under 35 U.S.C. § 103(a) be withdrawn.

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For the reasons stated above, it is respectfully submitted that all of the Applicants' claims are in form for allowance.

Please charge any prosecutorial fees which are due to Kimberly-Clark Worldwide, Inc. deposit account number 11-0875.

The undersigned may be reached at: (770) 587-8096.

Respectfully submitted,
FENWICK ET AL.

By: 

William D. Herrick
Registration No.: 25,468

CERTIFICATE OF FACSIMILE TRANSMISSION

I, Nathan Hendon, hereby certify that on April 6, 2004, this document is being sent by facsimile to the United States Patent and Trademark Office, central facsimile number for all patent application related correspondence, at 703-872-9306.

By: 

Nathan Hendon